

CLAIMS

1. A halogen-free fire-retarded plastic composition suitable for coating a substrate, comprising an acrylic resin and an intumescent agent, characterized in that:

- it is in the plastisol state and comprises a plasticizing medium in which the acrylic resin and the intumescent agent are dispersed;

- it exhibits, at low shear rates, Newtonian-type rheological behavior with a viscosity of less than 6000 mPa.s; and

- it exhibits, at high shear rates, pseudoplastic-type rheological behavior.

2. The composition as claimed in claim 1, characterized in that the weight proportion of the plasticizing medium comprising a phthalate is at most equal to 200% with respect to the weight of acrylic resin and/or the weight proportion of the intumescent agent is at most equal to 200% with respect to the weight of acrylic resin.

3. The composition as claimed in claim 1, characterized in that the plasticizing medium comprises predominantly, by weight, an organic phosphate.

4. The composition as claimed in claim 3, characterized in that the plasticizing medium comprises a phthalate.

5. The composition as claimed in claim 2, characterized in that the proportion by weight of the plasticizing medium is between 100 and 200%, and preferably between 120 and 145%, by weight of resin.

6. The composition as claimed in claim 2, characterized in that the proportion by weight of the intumescent agent is between 50 and 200%, and preferably between 150 and 200%, by weight of resin.

7. A flame-retarded composite yarn comprising a core made of a material of low combustibility, for example a halogen-free material, and a sheath made of

resin, characterized in that it is capable of being obtained by coating said core with the flame-retarded composition as claimed in any one of claims 1 to 6.

8. The yarn as claimed in claim 7, characterized in that the material of the core is a continuous glass filament.

9. A composite structure comprising a substrate of low combustibility, for example a halogen-free substrate, and at least one layer of resin, characterized in that it is capable of being obtained by coating the substrate with a flame-retarded composition as claimed in any one of claims 1 to 6.

10. A textile structure in which yarns as claimed in claim 7 are assembled or entangled.

11. A sun screen comprising a textile structure as claimed in claim 9 or 10.

12. A sign comprising a textile structure as claimed in claim 9 or 10.

13. A covering for walls or ceilings, comprising a textile structure as claimed in claim 9 or 10.

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US 1

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US 2